TLS Sites (September 2016/February 2017)

TLS Areas

Depth Transects

P

LSOS

J

O

A

M

K

L

N

B D

F

0   2.5   5 Kilometers

Grand Mesa TLS Datasets				
Site	Dates	Team	Processed	Available at NSDIC
A	9/28/2016, 2/9/2017, 2/10/2017	CRREL	Yes, Yes, Yes	In process
B	10/2/2016, 2/16/2017	CRREL	Yes	In process
D	9/26/2016, 2/8/2017	CU-CRREL, CRREL	,Yes	In process
F	9/27/2016, 2/21/2017	BSU	Yes, Yes	In process
J	9/28/2016, 2/24/2017	CU-CRREL, BSU	, Yes	, In process
I	9/26/2016	CRREL	Yes	In process
K	9/26/2016, 2/8/2017, 2/22/2017	BSU	Yes, Yes, Yes	In process
L	9/27/2016, 2/10/2017	CU-CRREL, BSU	, Yes	, In process
M	9/29/2016,10/1/2016, 2/14/2017	CRREL	Yes, Yes, Yes	In process
N	9/27/2016, 2/15/2017	CRREL	Yes, Yes	In process
O	9/28/2016, 2/25/2017	BSU	Yes, Yes	
P	9/28/2016, 2/9/2017	BSU	Yes, Yes	
LSOS	10/1/2016, 2/13/2017, 2/23/2017	CRREL, BSU	Yes, Yes, No	In process,

Site B

Snow Off

September
and
October
2016

LSOS

Site N

Site M

Snow On

February
2017
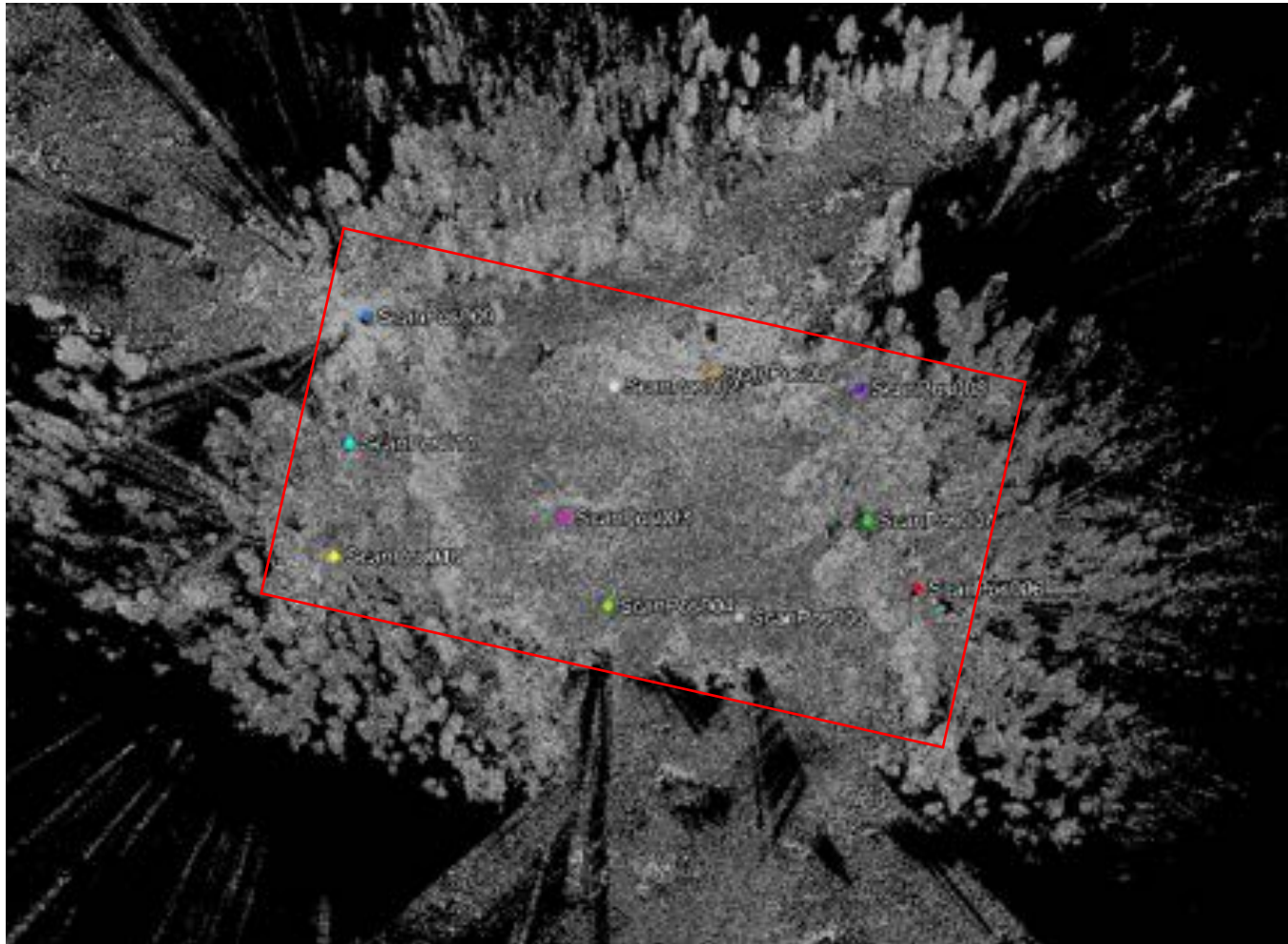(weeks 1 and 2)

Site D

Site B

Site A

Site M

Example site: Fall K

BSU Products delivered to NSDIC

- Raw & processed GPS
  - Raw: base log file, Topcon Magnet field project
  - Processed: base OPUS pdf, Magnet tools processing report (pts with error estimate, projection, geoid, etc)
- Raw & processed RiScan Project
  - Raw: field collected
  - Processed: scans registered to each other and geolocated
- Raw & processed LAS (*.laz) files
  - Suggested to use these files
  - Raw: each individual scan is georeferenced (only) (no clipping, cleaning, or height-filtering)
  - Processed: clipped to study area*, cleaned, georeferenced, height-filtered
    - *Connected each outside scan to form a polygon, then buffered polygon by 50 m

CRREL C10 Processing and Products

- Collected with the Leica C10 ScanStation and processed using Leica Geosystems Cyclone software and coincident DGPS survey data.

- Each point contains Easting, Northing, and Elevation (m), which have been projected into WGS84, UTM Zone 13N for the entire dataset.

- The vertical projection used was NAVD88 and calculated based on GEOID12B and is reported using the Orthographic (Ground) elevation values.

- Each point contains ancillary information on intensity (i) and has been linked to color (RGB) from coincident scanner photographs IF those photos were collected.

- In most cases, the final data format would be (E, N, Z, i, r, g, b). Data have not been classified into bare earth, vegetation classes, or trees; these are unprocessed data.

- **Data format:** .las

- **Data Volume:** Fall Data = 9750 MB; Winter Data =14000 MB